NASA Education & Public Outreach Strategies for Minority Institutions:

Earth Sciences, Space Sciences, Office of Education

Robert-Allen Baker, Vital Strategies Group Norfolk, VA

MU-SPIN Ninth Annual Users Conference September 21, 1999 Florida International University · Miami, FL

I. Introduction: Don't Assume

A. E/PO -- is it Education, or Science?

• E/PO is an educational opportunity for scientists and engineers -- giving us the opportunity to translate NASA enterprise science into curricula throughout the K-14 spectrum, and for public science venues (planetaria, e.g.).

### B. Why is E/PO significant to minority institutions?

- E/PO applications absolutely require minority participation -- the announcement criteria, carefully read, will tell you about the level of participation or partnership with majority institutions.
- E/PO is, for NASA, increasingly important: in many cases, the E/PO segment of a mission-related proposal is rated of equal importance with science and technical segments of the proposal.
- E/PO gives us an opportunity to interface with our education colleagues -- and education is usually a powerful component of any minority college -- to design curricular approaches to science we believe are in concert with the way we learn best, and to serve as a model for professional contribution back to our communities.

### B. Doing your homework

- Get in the habit of consulting NASA's web-site -- and especially the home pages for each enterprise, where new mission-related calls for proposals can always be found. Announcement dates and information are usually posted far in advance -- but not always: consult these sites monthly, at least.
- The devil's in the details: search the enterprise home pages carefully for tab references to "Education", "Education/Public Outreach", or "E/PO". The criteria and definitions are revised continually in each NASA enterprise.

### C. Different levels of participation

• Both AOs (Announcements of Opportunity) and NRAs (NASA Research Announcements) have E/PO segments -- but they represent very different kinds of opportunity. If you're not ready to apply as a Principal Investigator, learn more about partnering opportunities (see III. B., below.

### D. Retroactive opportunity

 Don't be shy: in many cases, it's possible to submit an NRA application after a research grant has already been made. Determine whose professional work you most respect and would like to affiliate with, and contact that scientist or engineer to determine if their grant lacked an E/PO component which you might provide. Use your professional networks!

### II. Earth Sciences Enterprise

#### A. What's unique about UNESS?

• The UNESS announcement offers a very unique E/PO opportunity, which may be repeated in future AOs in this and other enterprises. Consult the ESE home page, locate the UNESS E/PO criteria in that announcement, and become familiar with it.

# B. Getting help

• Currently, every NASA enterprise has its own unique way of approaching E/PO work, and an assistance office in that regard. Look for that office in the enterprise's home pages and talk with them -- even if you think the research announcement and the E/PO criteria are plain as day.

### III. Space Sciences Enterprise

### A. What's an Ecosystem?

• The Office of Space Science (OSS) has so evolved its approach to E/PO work; it has created a national "Ecosystem" of organizational entities -- especially its national network of Forums and of Broker/Facilitators. These are keys to your participation in NASA research opportunities. Identify them from the OSS web-site, and make contact.

### B. Getting help

 Any OSS Ecosystem Broker/Facilitator can help you understand your best course of action regarding preparation of an AO or NRA response -- and especially, helping you figure out partnering opportunities. Use them!

#### IV. Office of Education

#### A. Keeping an eye on LEARNERS

• LEARNERS is a periodic, entirely unique NASA grant announcement to do E/PO work through enterprise research already -- and recently -- performed. Consult the NASA Office of Education web-site, look for LEARNERS, and familiarize yourself with it.

#### B. CANs

 LEARNERS is just one example of a CAN -- a Cooperative Announcement put together by two or more NASA offices or units. CANs are periodic, but always offer extraordinary opportunities to participate in NASA research via E/PO work. As you periodically roam NASA's key web-sites, be on the look-out for these CANs.

### V. Getting Ready to Apply

## A. Following rules

- NASA thinks through each AO and NRA extremely carefully before they're published, sometimes putting months of preparation into announcement construction. Follow the rules for submission and inclusion of material exactly -- and realize that the pool of reviewers who will read your proposal are trained to follow the criteria without deviation.
- The devil is in the details, again: make sure that the required information you provide in the Appendices of research proposals is fully, fairly and accurately descriptive of you and your institution. In most cases, this will be the only way for reviewers to estimate your competency and capability -- which is invariably one of the more important judging criteria.

## VI. Just When You Thought It Was Over ....

## A. What you wrote, and the reviewers read

• If, after submitting an E/PO or related proposal to NASA, you are not selected, make sure you know exactly what the reviewers read in your proposal: read their published comments carefully, and ask for a "debriefing" from the appropriate announcement officer, in which you should be able to get extended comments that amplify the reviewers' findings. That way, mistakes won't be repeated.